

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-48 (Canceled)

49. (New) An isolated protein consisting of the 119 amino acids as shown in SEQ ID NO:1, wherein said protein is expressed in E. coli using a plasmid containing DNA encoding an amino acid sequence as shown in SEQ ID NO:1 with an additional Met at its N-terminus, wherein said protein has cartilage and/or bone morphogenetic activity, and wherein said protein is free of proteins according to SEQ ID NO: 1 with an Ala, or Met and Ala at the N-terminus.

50. (New) The isolated protein according to claim 49, wherein said protein is a homodimer.

51. (New) A pharmaceutical composition comprising the protein of claim 50 in an amount effective to treat cartilage and/or bone disease, in combination with a pharmaceutical carrier.

52. (New) The pharmaceutical composition of claim 51, wherein said amount is effective to treat osteoporosis.

53. (New) The pharmaceutical composition of claim 51, wherein said amount is effective to treat osteoarthritis or arthroseitis.

54. (New) The pharmaceutical composition of claim 51, wherein said amount is effective to treat bone fractures and/or bone defects or legions, or cartilage defects or lesions.

55. (New) The pharmaceutical composition of claim 51, wherein said amount is effective to treat articular cartilage lesions.

56. (New) The pharmaceutical composition of claim 55, wherein said amount is effective to treat an articular meniscus lesion.

57. (New) The pharmaceutical composition of claim 51, wherein the amount is effective for bone grafting, cartilage grafting or induction of new cartilage or bone.

58. (New) The pharmaceutical composition of claim 51 wherein said amount is effective to treat radicular or alveolar defects.

59. (New) The pharmaceutical composition of claim 51 wherein said amount is effective to treat congenital cartilage and/or bone diseases.

60. (New) The pharmaceutical composition of claim 51, wherein said pharmaceutical carrier is suitable for systemic or local administration.

61. (New) The pharmaceutical composition according to claim 51, wherein said pharmaceutical carrier is suitable for injection.

62. (New) The pharmaceutical composition of claim 51, wherein said pharmaceutical carrier is suitable for an injectable powder.

63. (New) The pharmaceutical composition of claim 51, wherein said pharmaceutical carrier is suitable for coating onto the surface of cartilage, bone or tooth.

64. (New) The pharmaceutical composition of claim 51, further comprising natural or artificial bone.

65. (New) The pharmaceutical composition of claim 64, wherein said artificial bone is selected from at least one material from the group consisting of metal, ceramic, glass, collagen and hydroxyapatite.

66. (New) The pharmaceutical composition according to claim 59, wherein said amount is effective to treat chondrodysplasia, chondrohypoplasia, achondrogenesis, palatoschisis or osteodysplasia.